

Solutions

By Carl Sumerix CM #67, President, Blue Streak L.L.C.

Holding tanks may not be pleasant, but they are a necessary part of owning an RV. During the last 38 years, I have repaired or replaced well over 1,000 RV holding tanks, not to mention dump valves and stools.

This has taught me a lot about holding tanks, not the least of which is that repairing them is one of the most unpleasant jobs there is. Additionally, many RVers don't properly maintain their tanks, which only adds to the problem. This can defeat the purpose of RV camping, which is to have a pleasant experience in a natural environment.

I've learned that a little maintenance can go a long way toward keeping holding tanks from becoming out of control and can help keep the RV's owner, not to mention neighbors, from having to deal with the very obvious evidence of a holding tank in disrepair—the smell.

If Levels Only Knew Their ABCs

1 The first of these, level gauges, are notorious for inaccurate readings. To understand this, it is necessary to know a little about how the gauges operate.

Most systems utilize tank probes mounted through the side of the tank. These probes use an electric current to detect how full the tank is. However, this system is not foolproof. For example, after a tank has recently been dumped, the side of the tank may still be wet. Additionally, paper products may still be attached



Tank Probes. Photo courtesy of www.rvsurplussalvage.com

to the probes. Either of these situations can cause an incorrect signal to be sent that the tank is still full.

The best way to manage this is to give the tank ample time to dry after dumping before checking the gauge.

Probe cleaners can also help if used on a regular basis, as long as the probes are not too old. After 10 years, probes should be replaced.



Valterra 3" Bladex Valve.
Courtesy of Valterra

Trouble with holding tanks usually involves one of four elements. These are:

- 1] Level gauges
- 2] Piling
- 3] Leaks
- 4] Odor

Another major problem, piling, occurs when solids build up in a tank. Generally, piling happens more frequently in travel trailers and fifth-wheels, presumably because they tend to be parked in one location for a longer period of time.

Piling is a result of waste being deposited in one spot in a tank, which is normally only either four or six inches deep. When there is not enough fluid in the tank,

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solids are not easily broken down. This leads to buildup and, eventually, an overflowing stool.

How to Avoid Piling

2The best and easiest way to avoid piling is to ensure that plenty of water is used when flushing. This helps to maintain an optimal fluid-to-solid ratio, which facilitates breakdown of solids.

Another option is to use the campground bathroom, if one is available, for the “deposit” of solids.

Tank flushers can also be used to clean the tank, but this can be time consuming and is not ideal if there is a line at the dump station. If you choose to use tank flushers, there are two major types from which to choose. One style is a wand that is placed in the stool and rinses the tank from the top. Another type mounts to the side of the tank. However, each of these types has its disadvantages, including accessibility issues and lack of effectiveness when a tank is already plugged. A last resort to keeping tanks in good repair is replacing them annually but, obviously, this can get expensive.

The Leaking Tank

3Leaking tanks are another major problem that can plague an RV owner.

To repair a small crack, a plastic tank repair kit can be used. These are inexpensive and should be fairly quick as long as the crack being repaired is accessible.



If the unit has a belly pan that needs to be removed, the task will be somewhat more complicated. Larger cracks usually necessitate replacing the tank or welding it with a plastic welder. It is good practice, if taking the RV in for repair to the holding tanks, stool or dump valves, to make sure the tanks are empty.

Leaks can also involve dump valves. Usually, dump valves leak internally, which you will notice when you remove the sewer cap. Dump valve leaks are caused by a bad seal or a blade not closing completely.

Fortunately, termination valves (also called gate valves) are somewhat inexpensive and, in most cases, easy to replace. If a valve is difficult to open and close, replacement is the best course of action.



Control the Odor

4Odor is probably one of the most menacing problems of RV holding tanks. Clearly, no one appreciates an unpleasant odor, whether in a \$500 camper or a half million-dollar motor home. One of the most common ways to control odor is with chemicals.



There is a wide range of chemicals on the market, available in liquid, powder and tablets. They include formaldehyde, deodorants, bacteria, enzymes, waste digesters and home brews. So many choices make it difficult to decide what to use. Different individuals have varying opinions on what is best to use.

Personally, I think a conservative use of chemicals is ideal. Some believe it is better not to use chemicals, but my experience tells me otherwise.

Through my work, I found that the easiest and most effective method of controlling odor is through the use of an automatic chemical dispenser, which is convenient, effective and precise each and every time.

This type of dispenser eliminates the chance of using too many chemicals, which often happens when they are added by hand. Overuse of chemicals is not only hard on disposal systems, but is also a waste of money. Additionally, many individuals overusing chemicals can necessitate the closure of rest area dump stations.



In closing, RV camping should be an enjoyable and environmentally friendly endeavor. If holding tanks are properly maintained, it can help support this goal.

To quote Mark J. Polk (RV Education 101): “Many of the free dump stations available to RVers are closing because of the chemicals that are harmful to septic systems and because RVers are abusing these dump stations. If we want to have access to these dump stations, it is absolutely essential that we use septic safe chemicals (no formaldehyde), and that we clean up after ourselves and not abuse dump stations.” Hopefully, this article will assist RV owners with being the solution rather than the problem.